

WHAT IS CLAIMED IS:

1. A system for managing knowledge acquisition from electronic databases, comprising:

- i. a filtering engine for analyzing smart search results, such that relevant information fragments are tagged according to professional terminology and content specific cues;
- ii. a mapping engine for allocating said relevant information fragments, provided by said filtering engine, to knowledge nodes, thereby enabling the virtual creation of content files; and
- iii. a content editing tool for enabling a human content editor to create a database of said smart search results, and categorizing unmapped said information fragments on said knowledge nodes, such that a modular structure of knowledge is formed;
- iv. a content oriented database system for storing said content files, said database of smart search results, a database of pointers to paragraphs, a database of said modular structure of knowledge, and an hierarchy of professional terminologies according to word groups in a specific field of knowledge; and
- v. a user interface for enabling user interaction with said content oriented database system, such that said user can navigate within said modular structure using outlines.

2. The system of claim 1, further comprising a processing means for executing pre-analysis of texts by said filtering engine and said mapping engine.

3. The system of claim 1, further comprising a server system for serving said content files to users.

4. The system of claim 1, wherein said filtering engine redefines knowledge according to information fragments, according to the following steps:

- a. automatically breaking up information sources into paragraph form, representing fragments of knowledge;
- b. filtering said paragraphs in order to identify relevant paragraphs; and
- c. tagging said relevant paragraphs to said modular structure of knowledge, using professional terms.

5. The system of claim 4, wherein said information fragments are categorized according to a modular structure that represents knowledge, such that each said fragment is linked to at least one node of said modular structure, such that the sum of all the nodes convey the ideas in a content specific field of knowledge.

6. The system of claim 1, wherein said mapping engine allocates said relevant information fragments to said knowledge nodes, according to the following steps:

- (i) locating paragraphs that remain after said filtering process, and tagging said paragraphs according to professional terminologies;
- (ii) allocating each said paragraph to at least one relevant node according to a word group table;
- (iii) in case of two identical nodes that match a same said terminology, allocating said paragraph to at least one relevant node using said paragraph environment and linking said node to an original source;
- (iv) identifying paragraphs that were not mapped, and extracting new terminologies that said paragraphs convey; and

- (v) creating new nodes within said modular structure of knowledge, according to said new terminology.

7. The system of claim 1, wherein said content files are displayed on an output device in a multiple windows window.

8. The system of claim 7, wherein said multiple windows window represents a virtual file, such that each said window in said multiple window can be operated independently, and such that each said window represents one paragraph that conveys said node's idea and a link back to original information source of said node.

9. The system of claim 1, wherein said client application is a personalized knowledge portal that replaces a user's desktop, and allows online and offline access to at least one knowledge base, according to the following steps:

- i) allowing the user to create modular structure of knowledge, inclusive of personal terms, synonyms and hierarchy;
- ii) allocating a personal content oriented database to store said modular structure of knowledge and information sources;
- iii) enabling the user to view personal content files from said personal content oriented database; and
- iv) enabling the user to compose explanatory outlines.

10. The content oriented database of claim 1, further comprising:

- I. an initial document table, that includes sources from a specific professional field of knowledge;
 - II. a paragraph table that includes pointers to tagged paragraphs within said document table;
 - III. a nodes table that includes a variety of ideas in a content specific field of knowledge, such that said ideas are arranged from more general ideas on the top nodes to very specific node on the bottom nodes, using hierarchical relations;
 - IV. a word group table that includes a collection of professional terms that define every idea within said node table; and
 - V. a node content table that includes pointers from every idea within said node table to all relevant paragraph within said paragraph table, using relevant word groups within aid word group table.
11. A method for categorizing information online, based on the inner structure of texts, comprising the steps of:
- i. identifying keywords that are related to a content specific field of knowledge;
 - ii. enhancing each said keyword with alternative terms for conveying said keyword's idea; and
 - iii. placing said terms within a table system that assigns every node which conveys a professional idea to a table of word groups, such that a table of paragraphs is allocated to each said professional idea.

12. The method of claim 11, wherein said inner structure of texts is derived according to the following steps:

- a. creating a collection of sources that deal with a content specific field of knowledge;
- b. extracting professional terminology from said collection;
- c. clustering extracted said professional terms into clusters of meanings in a node table;
- d. defining resulting clusters into word groups, which are placed in a word groups table, for enabling matching of said word groups to said nodes during user searches;
- e. organizing a hierarchical relationship in said node table, according to the order of appearance of said terminology in said texts;
- f. providing a processor with filtering software, coupled to said paragraph table, for filtering relevant information fragments in said paragraph table;
- g. providing mapping software for allocating said relevant fragments to at least one node in a node table, such that every paragraph is linked to said node table; and
- h. in the cases where said fragments cannot be assigned to said node table, sending said fragments to an expert, to define a new node and said new node's position in said node table.

13. The method of claim 12, further comprising a response to a user search request, comprising the following steps:

- A) recording the search request by an application program of the user, such that the search is chosen by the user by operating an input device coupled to a processor;
- B) requesting by said processor of a database for said terminology within a word group table;

C) if said terminology is found, presenting the user with relevant nodes within said node table that match the desired request;

D) presenting the user with paths of the said modular structure of knowledge that lead to said node in said node table;

E) if one of the nodes that was presented was selected from a relevant outline, displaying content file and visual presentation of said node on a user output device;

F) if said search phrase is unavailable, searching an original content database for said search request, by said processor; and

G) accumulating and analyzing unavailable terms, by an expert, such that said expert adds said new node in said node table, and such that said expert adds relevant terminologies in said word group table.

14. The method of claim 13, wherein said search request includes a search for a word group using an existing search mechanism, such that said search request is responded to by providing a content file linked to said word group.

15. A method of filtering textual data into a modular structure of knowledge, comprising the steps of:

- i. defining professional ideas in a specific field of knowledge;
- ii. collecting all relevant terminologies to define said ideas in word groups;
- iii. if said word group combinations do not appear within a paragraph, filtering out said paragraph;
- iv. if said word group combination appears within a paragraph, tagging said paragraph to a relevant node in a node table to which said word groups belong;

- v. if content specific cues appear within a paragraph, filtering out said cues;
- vi. tagging paragraphs that remain after said filtering procedure, such that said paragraphs are linked to nodes within a modular structure of knowledge; and
- vii. activating paragraphs that are linked to a same node in said node table via said node content table, within a content file, when the user navigates to said node.

16. A method for tracking and filing personal and public content into one integrated knowledge base, such that users can save and share knowledge searches, comprising the steps of:

- i. defining ideas within a personal modular structure of knowledge in a node table;
- ii. allocating word groups that define ideas using alternative terminologies in a word group table;
- iii. organizing said ideas using a hierarchical relationship within said node table;
- iv. collecting a database of sources that deal with a personal topic of interest in said document table; and
- v. employing a modular structure of knowledge to a personal database, such that said user creates a personalized paragraph table and a personalized node content table.

17. An engine for searching pre-analyzed content files, such that search queries are executed on the content files, providing highly accurate results in an accelerated time-frame, comprising:

- i. a database system for storing documents in their original format;

- ii. a content oriented database for storing links to fragments of said documents, such that said fragments are filtered and mapped onto a modular structure of knowledge;
- iii. a user interface for enabling user interaction with the said database system;
- iv. a server system for processing queries from said user interface, and serving the results of said queries to users;
- v. a software application that supports the dynamic and virtual retrieval of content files.

18. The engine of claim 17, wherein said database system comprises:

- a) initial database level for storing original content from information sources;
- b) a processor for filtering and mapping said original content into content fragments;
and
- c) a table system for storing said links to content fragments processed by said processor, such that said table system contains pointers to said content fragments and said original content.

19. The engine of claim 18, wherein said processor automates filtering and mapping of said content fragments on a pre-configured modular structure.

20. The engine of claim 18, wherein said table system stores links to information fragments, thereby enabling accelerated searching.

21. A method of automatically defining a body of knowledge, comprising the steps of:

- i. defining professional terms that convey content specific ideas;
- ii. defining alternative expressions that convey said professional ideas;

- iii. dividing said body of knowledge into information fragments;
- iv. filtering said information fragments according to usage of said professional terms;
- v. tagging every information fragment that contains said professional terms, such that said paragraph inherits said professional term's identity;
- vi. when two or more professional terms appear in one paragraph and convey different content specific meaning, providing said paragraph with all said different meanings, such that more than one professional idea in said node table will be assigned to said paragraph.
- vii. when two or more "professional terms" appear in one information fragment and have different levels of relevance, providing said information fragments with the level of relevance according to the highest rated professional term within the modular structure of knowledge;
- viii. tagging relevant information fragments with the meaning they inherited from the professional terms that they contain; and
- ix. tagging said relevant paragraphs with the level of relevance they inherit from the professional term that they contain.

22. The method of claim 20, wherein said engine enables billing per use, according to the following steps:

- a) monitoring each user request according to personal user access data;
- b) recording each tour of said user, such that fees are charged for each said tour within the modular structure;
- c) enabling a content provider to bill said user according to specific nodes that were clicked by said user;

- d) enabling said content provider to bill according to content files that have been used; and
- e) enabling said content provider to bill according to time spent within every node of the modular structure of knowledge.